

# YAMAHA

MONITOR SPEAKER SYSTEM

SYSTEME D'ENCIENTES ACOUSTIQUES DE CONTROLE

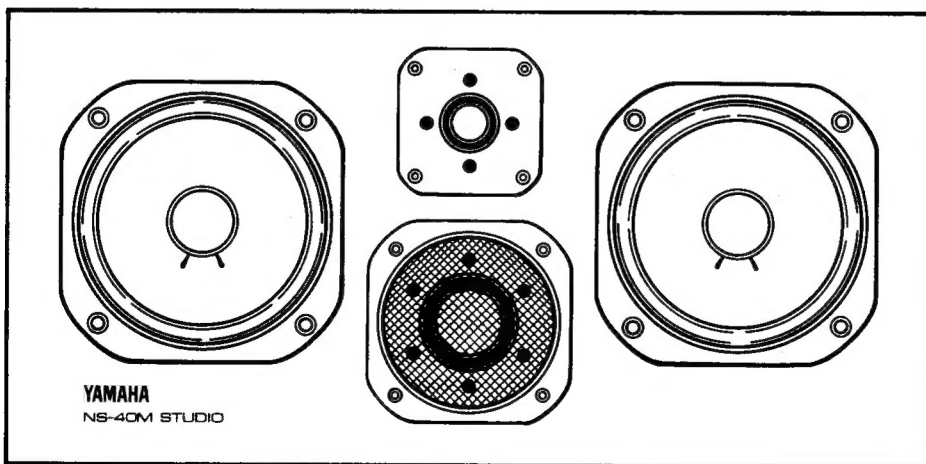
MONITOR LAUTSPRECHER SYSTEM

## NS-40M STUDIO

*Operation Manual*

*Mode d'emploi*

*Betriebsanleitung*



# INTRODUCTION

Congratulations on your purchase of a Yamaha NS-40M STUDIO Monitor Speaker System! The NS-40M STUDIO offers main-monitor sound and performance in a surprisingly compact enclosure. Although a bit too large for on-console mounting, the NS-40M STUDIO will fit comfortably in even the small studio. With a dual-woofer three-way configuration using specially designed drivers, the NS-40M STUDIO delivers extraordinarily flat, precise monitor sound from 50 Hz all the way up to 20 kHz. It can also handle up to 100 watts of program power and will not give out even under the strain of control-room monitoring levels.

The NS-40M STUDIO is the ideal main monitor speaker system choice for smaller recording, A/V production or broadcast studios, and will perform admirably as a secondary monitor system in larger studio environments.

In order to make the most of the outstanding sound the NS-40M STUDIO Monitor Speaker System has to offer, we urge you to read this Operating Manual thoroughly.

## PRECAUTIONS

- Make sure that the power to your amplifier is turned OFF before connecting the speakers.
- Do not attempt to drive the speakers at levels above their rated power capacity. Excessive power can lead to serious damage.
- Be sure to match the polarity of the speaker terminals (+, -) with the outputs of your amplifier. If the polarity of the left and right speakers is reversed, proper stereo imaging will be impossible to achieve and irregular response will result.
- This speaker system is not provided with grilles over the speaker units. Avoid touching the woofer cone – particularly the center cap – or the tweeter dome with fingers or any other object to prevent possible damage.
- To achieve optimum performance, use audio-quality heavy-gauge speaker cable.

## FEATURES

### ● Drivers

The woofers used in the NS-40M STUDIO have been designed with a low resonant frequency for accurate, extended bass response, and the dual-woofer configuration delivers greater, optimally balanced power in the bass region. The upper end of the woofers' response is rolled off and coupled to the midrange driver at 1.3 kHz, allowing them to operate only over their flattest, most precise range. The soft-dome midrange driver operates from 1.3 kHz up to 5.5 kHz, which is also within its optimum response range. The relatively high crossover to the soft-dome tweeter (5.5 kHz) both minimizes the power handling requirements of the tweeter and allows the unit to be designed for smooth, flat response right up to 20 kHz. The NS-40M STUDIO tweeter has been designed without a grille cover to eliminate response irregularities due to interference between the direct sound and reflections from the grille.

### ● Enclosure

The NS-40M STUDIO enclosure is constructed from a specially-selected high-density particle board that is 20

millimeters thick, and carefully reinforced to eliminate resonance that could color the sound. This heavy-duty construction also helps the NS-40M STUDIO to stand up to the rigors of professional studio use.

### ● Crossover Network

In addition to basically first-class circuit design and the use of top-quality parts throughout, the NS-40M STUDIO crossover network is constructed as three independent filter units. Independent filters for the woofer, midrange driver and tweeter are separately mounted within the enclosure so as to completely avoid interference caused by flux leakage and to minimize vibration-induced modulation. Both sophisticated measurements and listening tests were used to achieve the cleanest sound possible.

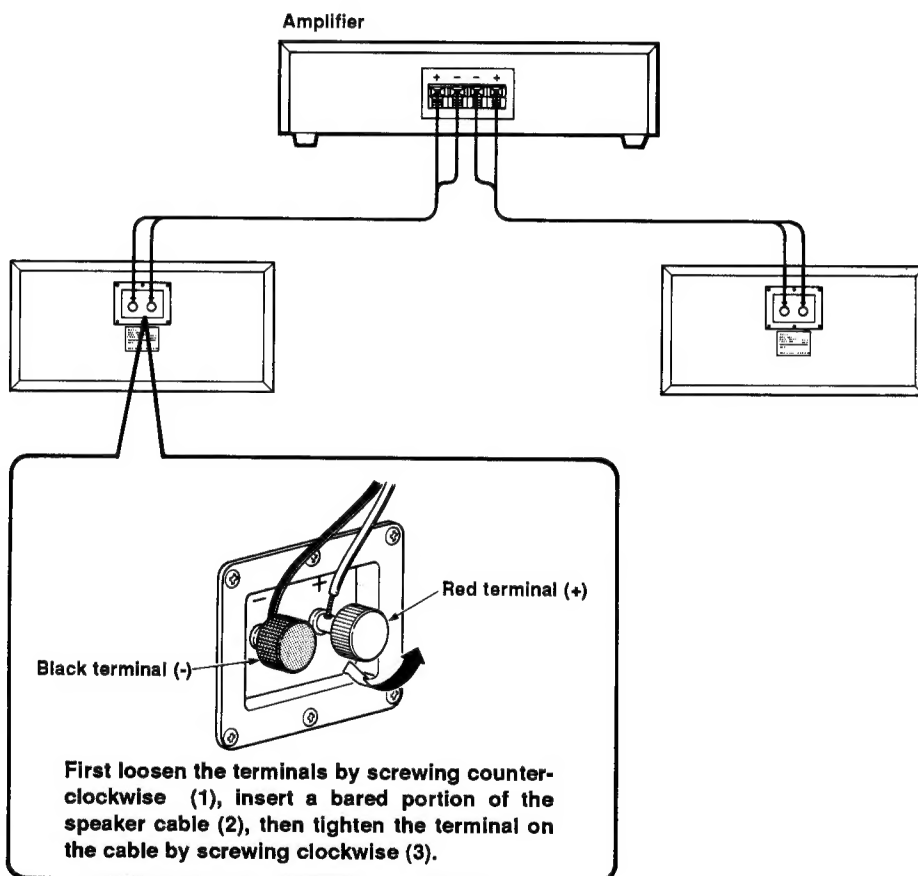
### ● Speaker Terminals

Large screw-type terminals easily accept heavy-gauge speaker cable for optimum reproduction performance.

# CONNECTION

## **BEFORE MAKING SPEAKER CONNECTIONS, MAKE SURE YOUR POWER AMPLIFIER IS TURNED OFF!**

The terminals on the rear of the left and right speakers must be connected to the corresponding speaker output terminals on the rear of your power amplifier with appropriate speaker cables. Make sure that the right speaker is connected to the speaker output terminals on the amplifier marked "R" or "RIGHT," and the left speaker is connected to the amplifier output terminals marked "L" or "LEFT." Also make sure that the red (+) terminal on each speaker is connected to the (+) output terminal of corresponding pair on the amplifier, and the black (-) terminal on the speaker is connected to the (-) terminal on the amplifier. If the speaker polarities are not properly matched, unstable stereo imaging will result.



## **PLACEMENT**

The NS-40M STUDIO speakers are designed for horizontal placement. Make sure the speaker fed by the RIGHT output of the power amplifier is placed to your right, and the speaker fed by the LEFT power amp output is placed to your left. According to your requirements, however, the positions of the speakers may be reversed or they may be placed vertically with no effect on reproduction quality.

# SPECIFICATIONS

## Frequency Range

50 Hz – 20 kHz

## Power Capacity

100 watts (program)

200 watts (MAX)

## Nominal Impedance

6 ohms

## Sensitivity

90 dB SPL (1W, 1m, on-axis)

## Crossover Frequency

1.3 kHz , 5.5 kHz

## Connector

Screw terminal

## Components

LF JA1811 (7" cone) x 2

MF JA0610 (2-3/8" soft dome)

HF JA0589 (1-1/8" soft dome)

## Enclosure

Type ; acoustic-suspension

Volume ; 35 ℓ

## Dimensions (W x H x D)

598 mm x 293 mm x 312 mm

(23-1/2" x 11-1/2" x 12-1/4")

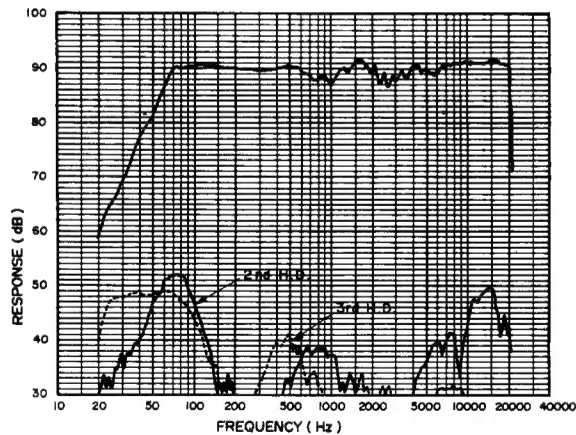
## Weight

17.0 kg (37.5 lbs)

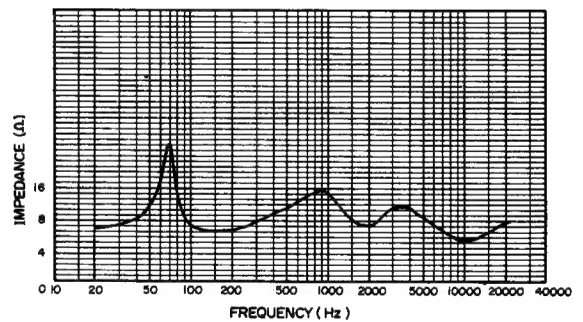
# TECHNICAL DATA

## • Frequency Response / Harmonic Distortion

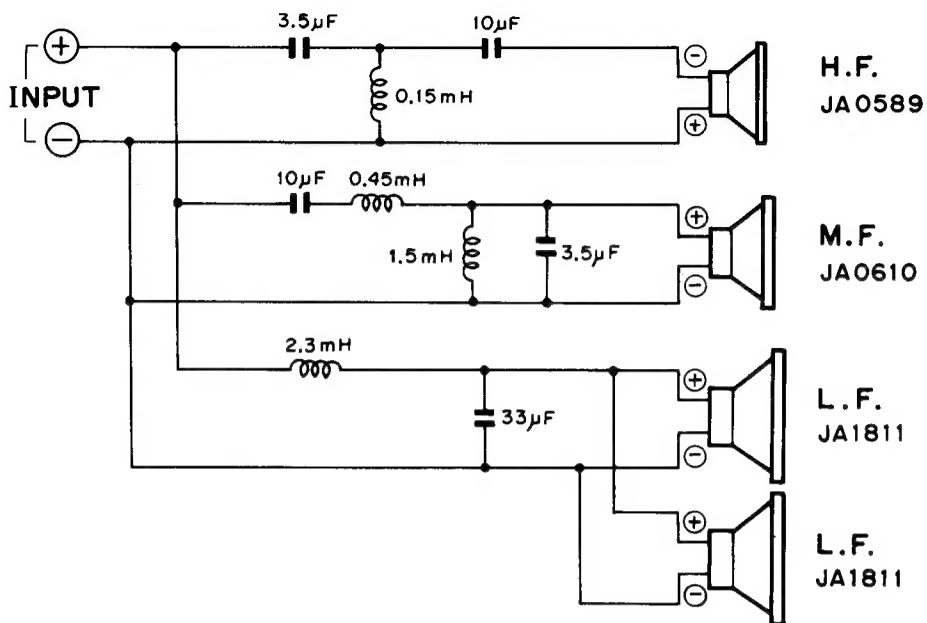
(1W, 1m on axis, in anechoic chamber)



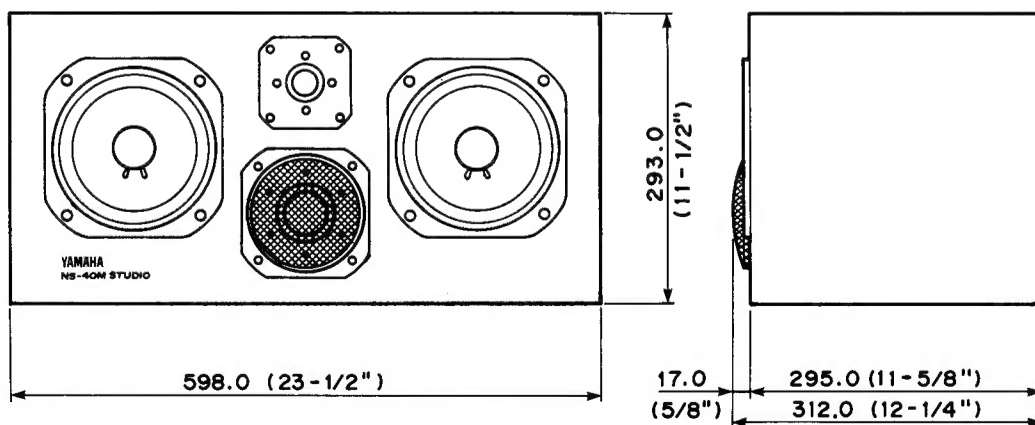
## • Impedance vs Frequency



# CIRCUIT DIAGRAM SCHEMA DE PRINCIPE SCHALTPLAN



# DIMENSIONS SCHEMA DES DIMENSIONS ABMESSUNGSPLAN



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# YAMAHA

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